

GREEN CADDISFLY

Trichoptera: Rhyacophilidae
Rhyacophila spp.

Bug
of the
Month



This caddisfly belongs to one of four genera, *Rhyacophila*, within the family Rhyacophilidae. Species in the genus *Rhyacophila* are diverse, with over 600 different species. Pictured above is a preserved *Rhyacophila* sp., but in the wild, *Rhyacophila* spp. appear green and are commonly referred to as the “Green Caddisfly”.

Species in Rhyacophilidae have no gills; to breathe, they require highly oxygenated water to diffuse through

their skin. Rhyacophilids are common in cold water riffle environments where riffle agitation increases the dissolved oxygen concentration. Within the riffle habitat, *Rhyacophila* spp. navigate the stream bottom by clinging to substrate without a case or net. Their feeding strategy is unique because they use four out of the five functional feeding strategies employed by aquatic benthic macroinvertebrates (i.e., scrappers/grazers, shredders, collectors/gatherers, predators, but not filter

feeders). So, all smaller aquatic organisms, beware!

When *Rhyacophila* spp. are ready to pupate, they build an external pebble case with an aquatic cocoon inside the case. Within this case, they often develop, overwinter, and emerge the following year. Due to this developmental process and timing, different species within *Rhyacophila* emerge at various times of the year ranging from spring to fall.

By Francesca Ferguson

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